ELSEVIER

Meat Science 62 (2002) V–XIV

MEAT SCIENCE

www.elsevier.com/locate/meatsci

Contents of Volume 60

Number 1

1 Effects of dietary fats on meat quality and sensory characteristics of heavy pig loins
C. CORINO, S. MAGNI, E. PAGLIARINI, R. ROSSI, G. PASTORELLI, L.M. CHIESA (Italy)

9 Effect of dietary conjugated linoleic acid, irradiation, and packaging conditions on the quality characteristics of raw broiler breast fillets
M. DU, K.C. NAM, S.J. HUR, H. ISMAIL, D.U. AHN (USA)

17 Effects of RN genotype and silage feed on fat content and fatty acid composition of fresh and cooked pork loin
L. JOHANSSON, K. LUNDSTRÖM, A. JONSÄLL (Sweden)

25 Carbon monoxide-heme pigment is responsible for the pink color in irradiated raw turkey breast meat
K.C. NAM, D.U. AHN (USA)

35 Effect of vitamin E supplementation on α-tocopherol and β-carotene concentrations in tissues from pasture- and grain-fed cattle
A. YANG, M.J. BREWSTER, M.C. LANARI, R.K. TUME (Australia)

41 Lipid stability and meat colour of beef from pasture- and grain-fed cattle with or without vitamin E supplement
A. YANG, M.C. LANARI, M. BREWSTER, R.K. TUME (Australia)

51 Electrical impedance and tenderisation in bovine meat
J. LEPETIT, P. SALÉ, R. FAVIER, R. DALLE (France)

63 Comparison of CO_2 stunning with manual electrical stunning (50 Hz) of pigs on carcass and meat quality
H.A. CHANNON, A.M. PAYNE, R.D. WARNER (Australia)

69 Sexing of beef — a survey of possible methods
R. ZELENY, H. SCHIMMEL (Belgium)

77 Analysis of raw meat to predict proteolysis in Parma ham
C. SCHIVAZAPPA, M. DEGNI, L. NANNI COSTA, V. RUSSO, L. BUTTAZZONI, R. VIRGILI (Italy)

85 A comparison of biochemical and meat quality variables in red deer (*Cervus elaphus*) following either slaughter at pasture or killing at a deer slaughter plant
J.C. POLLARD, R.P. LITTLEJOHN, G.W. ASHER, A.J.T. PEARSE, J.M. STEVENSON-BARRY, S.K. McGREGOR, T.R. MANLEY, S.J. DUNCAN, C.M. SUTTON, K.L. POLLOCK, J. PRESCOTT (New Zealand)

95 The effect of genotype, sex and management strategy on the eating quality of pork
D.N. D'SOUZA, B.P. MULLAN (Australia)

103 Determination of the precision of the fatty acid analysis of Iberian pig fat by gas chromatography. Results of a mini collaborative study
J. GARCÍA-OLMO, E. DE PEDRO, A. GARRIDO, A. PAREDES, C. SANABRIA, M. SANTOLALLA, J. SALAS, J.R. GARCÍA-HIERRO, I. GONZALEZ, M.D. GARCÍA-CACHAN, J. GUIRAO (Spain)

111 AMSA membership: benefits and application

Number 2

113 Tenderness, ageing rate and meat quality of pork *M. longissimus thoracis et lumborum* after accelerated boning
M.P. REES, G.R. TROUT, R.D. WARNER (Australia)

125 Dietary manipulation of muscle long-chain omega-3 and omega-6 fatty acids and sensory properties of lamb meat
E.N. PONNAMPALAM, A.J. SINCLAIR, A.R. EGAN, G.R. FERRIER, B.J. LEURY (Australia)

133 Predicting pork carcass and primal lean content from electromagnetic scans
E.P. BERG, A. ASFAW, M.R. ELLERSIECK (USA)

141 High and low *rigor* temperature effects on sheep meat tenderness and ageing
C.E. DEVINE, S.R. PAYNE, B.M. PEACHEY, T.E. LOWE, J.R. INGRAM, C.J. COOK (New Zealand)

147 Effects of sodium lactate and trisodium phosphate on the physicochemical properties and shelf life of low-fat Chinese-style sausage
K.-W. LIN, S.-N. LIN (Taiwan)

155 Effect of muscle restraint on sheep meat tenderness with *rigor mortis* at 18°C
C.E. DEVINE, S.R. PAYNE, R.W. WELLS (New Zealand)

161 Effect of dietary fish oil on fatty acid composition, lipid oxidation and sensory property of chicken frankfurters during storage
LIN JEUN-HORNG, LIN YUAN-HUI, KUC CHUN-CHIN (Taiwan)

169 Lipid composition, retention and oxidation in fresh and completely trimmed beef muscles as affected by common culinary practices
A. BADIANI, S. STIPA, F. BITOSSI, P.P. GATTA, G. VIGNOLA, R. CHIZZOLINI (Italy)

187 On attempts to measure the tenderness of *Longissimus Dorsi* muscles using fluorescence emission spectra
B. EGELANDSDAL, J.P. WOLD, A. SPONNICH, S. NEEGÅRD, K.I. HILDRUM (Norway)

203 Electrical stunning of pigs: the effect of applied voltage on impedance to current flow and the operation of a fail-safe device
S.B. WOTTON, M. O'CALLAGHAN (UK)

209 AMSA membership: benefits and application

Number 3

211 Relationships between sensory and objective measures of meat tenderness of beef *m. longissimus thoracis* from bulls and steers
B.M. PEACHEY, R.W. PURCHAS, L.M. DUIZER (New Zealand)

219 Effect of organic production system on broiler carcass and meat quality
C. CASTELLINI, C. MUGNAI, A. DAL BOSCO (Italy)

227 Utilization of cereal and fruit fibres in low fat dry fermented sausages
M.L. GARCIA, R. DOMINGUEZ, M.D. GALVEZ, C. CASAS, M.D. SELGAS (Spain)

237 Meat tenderization by calcium chloride after osmotic dehydration
B. GERELT, Y. IKEUCHI, T. NISHIUMI, A. SUZUKI (Japan)

245 The effects of acetic acid, gluconic acid and trisodium citrate treatment of beef trimmings on microbial, color and odor characteristics of ground beef through simulated retail display
M.R. STIVARIUS, F.W. POHLMAN, K.S. McELYEA, J.K. APPLE (USA)

253 Sensory colour assessment of fresh meat from pigs supplemented with iron and vitamin E
M.G. O'SULLIVAN, D.V. BYRNE, J. STAGSTED, H.J. ANDERSEN, M. MARTENS (Denmark)

267 Purification of transglutaminase and its effects on myosin heavy chain and actin of spent hens
T.-F. TSENG, M.-T. CHEN, D.-C. LIU (Taiwan)

271 The effect of injection level and cooling method on the quality of cooked ham joints
E.M. DESMOND, T.A. KENNY, P. WARD (Ireland)

279 Continuous distribution analysis of T_2 relaxation in meat—an approach in the determination of water-holding capacity
H.C. BERTRAM, S. DØNSTRUP, A.H. KARLSSON, H.J. ANDERSEN (Denmark)

287 Temperature and catecholamine effects on metabolism of perfused isolated rabbit muscle
T. ASTRUC, A. TALMANT, X. FERNANDEZ, G. MONIN (France)

295 The effect of nitrite and starter culture on microbiological quality of "chorizo"—a Spanish dry cured sausage
B. GONZÁLEZ, V. DIEZ (Spain)

299 Microbial, instrumental color and sensory color and odor characteristics of ground beef produced from beef trimmings treated with ozone or chlorine dioxide
M.R. STIVARIUS, F.W. POHLMAN, K.S. McELYEA, J.K. APPLE (USA)

307 Effect of artificial rearing on lamb welfare and meat quality
F. NAPOLITANO, G.F. CIFUNI, C. PACELLI, A.M. RIVIEZZI, A. GIROLAMI (Italy)

317 Book review

319 AMSA membership: benefits and application

Number 4

321 Ultrastructural changes during aging in *M. longissimus thoracis* from moose and reindeer
R.G. TAYLOR, R. LABAS (France), F.J.M. SMULDERS (Austria), E. WIKLUND (Sweden)

327 Effects of hot water and lactic acid treatment of beef trimmings prior to grinding on microbial, instrumental color and sensory properties of ground beef during display
M.R. STIVARIUS, F.W. POHLMAN, K.S. MCELYEA, A.L. WALDROUP (USA)

335 The effect of selected functional additives and heat treatment on nitrosamine content in pasteurized pork ham
R. RYWOTYCKI (Poland)

341 Effects of vascular infusion with a solution of saccharides, sodium chloride, and phosphates with or without vitamin C on carcass traits, Warner–Bratzler shear force, flavor-profile, and descriptive-attribute characteristics of steaks and ground beef from Charolais cattle
E.J. YANCEY, M.E. DIKEMAN, P.B. ADDIS, E. KATSANIDIS, M. PULLEN (USA)

349 Reduction of *E. coli*, *Salmonella typhimurium*, coliforms, aerobic bacteria, and improvement of ground beef color using trisodium phosphate or cetylpyridinium chloride before grinding
F.W. POHLMAN, M.R. STIVARIUS, K.S. MCELYEA, A.L. WALDROUP (USA)

357 Lipid traits of muscles as related to genotype and fattening diet in Iberian pigs: total intramuscular lipids and triacylglycerols
J.F. TEJEDA (Spain), G. GANDEMER (France), T. ANTEQUERA (Spain), M. VIAU (France), C. GARCIA (Spain)

365 Differentiation of cattle species in beef by PCR-RFLP of mitochondrial and satellite DNA
E.L.C. VERKAAR, I.J. NIJMAN, K. BOUTAGA, J.A. LENSTRA (The Netherlands)

371 Comparison of shelf life of vacuum-packed pork and beef
Y. BLIXT, E. BORCH (Sweden)

379 Eating quality of lamb meat: effects of breed, sex, degree of maturity and nutritional management
G. ARSENOS, G. BANOS, P. FORTOMARIS, N. KATSAOUNIS, C. STAMATARIS, L. TSARAS, D. ZYGOYIANNIS (Greece)

389 Stunning and slaughter of ostriches
S. WOTTON, J. SPARREY (UK)

395 Cooking method and endpoint temperature effects on sensory and color characteristics of pumped pork loin chops
C. PRESTAT, J. JENSEN, F.K. MCKEITH, M.S. BREWER (USA)

401 Temperatures and ages of boxed beef packed and distributed in Canada
C.O. GILL, T. JONES, K. RAHN, S. CAMPBELL, D.I. LEBLANC, R.A. HOLLEY, R. STARK (Canada)

411 Muscle lipids, vitamins E and A, and lipid oxidation as affected by diet and RN genotype in female and castrated male Hampshire crossbreed pigs
A. HÖGBERG, J. PICKOVA, J. BABOL, K. ANDERSSON, P.C. DUTTA (Sweden)

421 Photooxidation of nitrosylmyoglobin at low oxygen pressure. Quantum yields and reaction stoechiometries
J.K.S. MØLLER, G. BERTELSEN, L.H. SKIBSTED (Denmark)

427 Carcass quality in male fallow deer (*Dama dama*): effects of age and supplementary feeding
L.A. VOLPELLI, R. VALUSSO, E. PIASENTIER (Italy)

433 AMSA membership: benefits and application

Contents of Volume 61

Number 1

1 Effect of supplemental vitamin E on the color and case-life of top loin steaks and ground chuck patties in modified atmosphere case-ready retail packaging systems
R.L. STUBBS, J.B. MORGAN, F.K. RAY, H.G. DOLEZAL (USA)

7 Lipid and colour stability of Milano-type sausages: effect of packing conditions
E. ZANARDI, V. DORIGONI, A. BADIANI, R. CHIZZOLINI (Italy)

15 Salt and phosphate effects on the gelling process of pressure/heat treated pork batters
F. FERNÁNDEZ-MARTÍN, S. COFRADES, J. CARBALLO, F. JIMÉNEZ-COLMENERO (Spain)

25 Meat pH and meat fibre direction effects on moisture diffusivity in salted ham muscles dried at 5 °C
P. GOU, J. COMAPOSADA, J. ARNAU (Spain)

33 Factors affecting the level of boar taint in entire male pigs as assessed by consumer sensory panel
J. BABOL (Sweden), E.J. SQUIRES, E.A. GULLETT (Canada)

41 Combined effects of pre-slaughter treatments and lairage time on carcass and meat quality in pigs of different halothane genotype
L. NANNI COSTA, D.P. LO FIEGO, S. DALL'OLIO, R. DAVOLI, V. RUSSO (Italy)

49 Raw-meat packaging and storage affect the color and odor of irradiated broiler breast fillets after cooking
M. DU, S.J. HUR, D.U. AHN (USA)

55 Porcine troponin I: a thermostable species marker protein
F.-C. CHEN, Y.-H.P. HSIEH (USA)

61 Fatty acid and triglyceride profiles of intramuscular and subcutaneous fat from fresh and dry-cured hams from Hairless Mexican Pigs
G.L. DELGADO, C.S. GÓMEZ, L.M.S. RUBIO, V.S. CAPELLA, M.D. MÉNDEZ, R.C. LABASTIDA (Mexico)

67 Immunohistochemical detection of brain tissue in heated meat products
M.H.G. TERSTEEG, P.A. KOOLMEES, F. VAN KNAPEN (Netherlands)

73 Quality of comminuted sausages formulated from mechanically deboned poultry meat
M.B. MIELNIK, K. AABY, K. ROLFSEN, M.R. ELLEKJÆR, A. NILSSON (Norway)

85 Cooked sausage batter cohesiveness as affected by sarcoplasmic proteins
M.M. FAROUK, K. WIELICZKO, R. LIM, S. TURNWALD, G.A. MACDONALD (New Zealand)

91 Perimysial collagen crosslinking and meat tenderness in Belgian Blue double-muscled cattle
T.M. NGAPO, P. BERGE, J. CULIOLI, E. DRANSFIELD (France), S. DE SMET, E. CLAEYS (Belgium)

103 Contribution of major structural changes in myofibrils to rabbit meat tenderisation during ageing
J.A. MESTRE PRATES, F.J.S. GARCIA E COSTA, A.M.R. RIBEIRO, A.A. DIAS CORREIA (Portugal)

115 AMSA membership: benefits and application

Number 2

117 Myosin heavy chain isoforms account for variation in pork quality
J.M. EGGERT, F.F.S. DEPREUX, A.P. SCHINCKEL, A.L. GRANT, D.E. GERRARD (USA)

127 Sensory and chemical investigations on the effect of oven cooking on warmed-over flavour development in chicken meat
D.V. BYRNE, W.L.P. BREDIE (Denmark), D.S. MOTTRAM (UK), M. MARTENS (Denmark)

141 Analysis of biogenic amines in northern and southern European sausages and role of flora in amine production
D. ANSORENA (Spain), M.C. MONTEL (France), M. ROKKA (Finland), R. TALON (France), S. EEROLA, A. RIZZO (Finland), M. RAEMAEKERS, D. DEMEYER (Belgium)

149 Effects of starter cultures and additives on the quality of Turkish style sausage (sucuk)
H. BOZKURT, O. ERKMEN (Turkey)

157 Differentiation of the raw material of the Iberian pig meat industry based on the use of amplified fragment length polymorphism
E. ALVES, C. CASTELLANOS, C. OVILO, L. SILIÓ, C. RODRÍGUEZ (Spain)

163 Intron variability in an actin gene can be used to discriminate between chicken and turkey DNA
A.K. LOCKLEY, R.G. BARDSLEY (UK)

169 Effect of calcium infusion on tenderness and ageing rate of pork *m. longissimus thoracis et lumborum* after accelerated boning
M.P. REES, G.R. TROUT, R.D. WARNER (Australia)

181 Consumer acceptability of dark, firm and dry (DFD) and normal pH beef steaks
H.F. VILJOEN, H.L. DE KOCK, E.C. WEBB (South Africa)

187 Charqui meats as fermented meat products: role of bacteria for some sensorial properties development
M.F. PINTO, E.H.G. PONSANO, B.D.G.M. FRANCO, M. SHIMOKOMAKI (Brazil)

193 Monitoring androstenone levels in boars by direct immunochemical analysis of serum samples
M. TUOMOLA, R. HARPIO, E.-R. WIRTA, T. LÖVGREN (Finland)

199 Changes in proteasome activity during postmortem aging of bovine muscle
M. LAMARE, R.G. TAYLOR, L. FAROUT, Y. BRIAND, M. BRIAND (France)

205 Tenderness of pork *m. longissimus thoracis et lumborum* after accelerated boning. Part I. Effect of temperature conditioning
M.P. REES, G.R. TROUT, R.D. WARNER (Australia)

215 Tenderness of pork *m. longissimus thoracis et lumborum* after accelerated boning. Part II. Effect of post-slaughter ageing
M.P. REES, G.R. TROUT, R.D. WARNER (Australia)

225 AMSA membership: benefits and application

Number 3

227 Evaluation of rib steak colour from Friesian, Hereford and Charolais heifers pastured or overwintered prior to slaughter
A. LYNCH, D.J. BUCKLEY, K. GALVIN, A.M. MULLEN, D.J. TROY, J.P. KERRY (Ireland)

233 In vitro ^{31}P NMR studies on biopsy skeletal muscle samples compared with meat quality of normal and heterozygous malignant hyperthermia pigs
R. LAHUCKY (Slovak Republic), U. BAULAIN, M. HENNING (Germany), P. DEMO, P. KRSKA, T. LIPTAJ (Slovak Republic)

243 Proximate composition, selected minerals, cholesterol content and lipid oxidation of mechanically and hand-deboned chickens from the Jordanian market
R. AL-NAJDAWI, B. ABDULLAH (Jordan)

249 The effect of pig genetics on palatability, color and physical characteristics of fresh pork loin chops
M.S. BREWER, J. JENSEN, A.A. SOSNICKI, B. FIELDS, E. WILSON, F.K. MCKEITH (USA)

257 Volatile profiles, lipid oxidation and sensory characteristics of irradiated meat from different animal species
Y.H. KIM (South Korea), K.C. NAM, D.U. AHN (USA)

267 A national audit of retail lamb loin quality in Australia
E. SAFARI, H.A. CHANNON, D.L. HOPKINS, D.G. HALL, R. VAN DE VEN (Australia)

275 Use of *Staphylococcus xylosus* as a starter culture in dried sausages: effect on the biogenic amine content
F. GARDINI, M. MARTUSCELLI, M.A. CRUDELE, A. PAPARELLA, G. SUZZI (Italy)

285 Use of oxygen sensors to non-destructively measure the oxygen content in modified atmosphere and vacuum packed beef: impact of oxygen content on lipid oxidation
M. SMIDDY, M. FITZGERALD, J.P. KERRY, D.B. PAPKOVSKY, C.K. O'SULLIVAN, G.G. GUILBAULT (Ireland)

291 Identification of the goose species (*Anser anser*) in Italian "Mortara" salami by DNA sequencing and a Polymerase Chain Reaction with an original primer pair
F. COLOMBO, E. MARCHISIO, A. PIZZINI, C. CANTONI (Italy)

295 Electromagnetic scanning to estimate carcass lean content of Taiwan native broilers
R.S. LIN, L.R. CHEN, S.C. HUANG, C.Y. LIU (Taiwan)

301 α- and γ-tocopherol levels in Nelore steer blood plasma after a single oral treatment of soybean oil deodorizer distillate (SODD)
J.R.Z. BORHER, L.A.G. GONÇALVES, P.E. DE FELÍCIO (Brazil)

307 The effects of ozone, chlorine dioxide, cetylpyridinium chloride and trisodium phosphate as multiple antimicrobial interventions on microbiological, instrumental color, and sensory color and odor characteristics of ground beef
F.W. POHLMAN, M.R. STIVARIUS, K.S. MCELYEA, Z.B. JOHNSON, M.G. JOHNSON (USA)

315 Reduction of microorganisms in ground beef using multiple intervention technology
F.W. POHLMAN, M.R. STIVARIUS, K.S. MCELYEA, Z.B. JOHNSON, M.G. JOHNSON (USA)

323 Effect of temperature on the radiation resistance of virulent *Yersinia enterocolitica*
C.H. SOMMERS, B.A. NIEMIRA, M. TUNICK, G. BOYD (USA)

329 Relationships between beef carcass shape and muscle to bone ratio
R.W. PURCHAS (New Zealand), A.V. FISHER (UK), M.A. PRICE, R.T. BERG (Canada)

339 AMSA membership: benefits and application

Number 4

341 Evolution in the shoulder composition of hairless Mexican pigs throughout the curing and drying processes
G.L. DELGADO, C.S. GÓMEZ, L.M.S. RUBIO, C.H.F. ITURBE, M.D. MÉNDEZ (Mexico)

347 Influence of sensory characteristics on the acceptability of dry-cured ham
J. RUIZ, C. GARCÍA, E. MURIEL, A.I. ANDRÉS, J. VENTANAS (Spain)

355 Physiological and structural events post mortem of importance for drip loss in pork
A. SCHÄFER, K. ROSENVOLD, P.P. PURSLOW, H.J. ANDERSEN, P. HENCKEL (Denmark)

367 Meat traceability using DNA markers: application to the beef industry
A. ARANA, B. SORET, I. LASA, L. ALFONSO (Spain)

375 The effect of experimental stress on sarcoplasmic reticulum Ca^{2+} transport and meat quality in pig muscle
U. KÜCHENMEISTER, G. KUHN, B. STABENOW, K. ENDER (Germany)

381 Fatty acid composition of muscle and fat tissues of Omani Jebel Akhdar goats of different sexes and weights
O. MAHGOUB, A.J. KHAN, R.S. AL-MAQBALY, J.N. AL-SABAHI, K. ANNAMALAI, N.M. AL-SAKRY (Oman)

389 Influence of vitamin E on lipid and protein oxidation induced by H_2O_2-activated MetMb in microsomal membranes from turkey muscle
F. BATIFOULIER, Y. MERCIER, P. GATELLIER, M. RENERRE (France)

397 Effect of fat level and partial replacement of pork backfat with olive oil on processing and quality characteristics of fermented sausages
E. MUGUERZA (Spain), G. FISTA (Greece), D. ANSORENA, I. ASTIASARAN (Spain), J.G. BLOUKAS (Greece)

405 Chloride salt type/ionic strength, muscle site and refrigeration effects on antioxidant enzymes and lipid oxidation in pork
P. HERNÁNDEZ, D. PARK, K. SOON RHEE (USA)

411 The relationship between post-mortem calcium concentration or pH and indicators of proteolysis in ovine muscle
D.L. HOPKINS, J.M. THOMPSON (Australia)

415 Changes in immunoelectron microscopic localization of cathepsin D in muscle induced by conditioning or high-pressure treatment
T. KUBO, B. GERELT, G.D. HAN, T. SUGIYAMA, T. NISHIUMI, A. SUZUKI (Japan)

419 Effects of pH and temperature on metmyoglobin solubility in a model system
L.G. ZHU, M.S. BREWER (USA)

425 Effect of transport time on welfare and meat quality in pigs
M.P. PÉREZ, J. PALACIO, M.P. SANTOLARIA, M.C. ACEÑA, G. CHACÓN, M. GASCÓN, J.H. CALVO, P. ZARAGOZA, J.A. BELTRAN, S. GARCIA-BELENGUER (Spain)

435 Characterisation and screening for antimicrobial substances of slaughtered cattle in Zaria, Nigeria
J. KABIR, J.U. UMOH, V.J. UMOH (Nigeria)

441 Effect of Brussels sprouts and inulin/rape seed cake on the sensory profile of pork *M. longissimus dorsi*
L.L. HANSEN (Denmark), H. AGERHEM (Sweden), K. ROSENVOLD, M.T. JENSEN (Denmark)

449 Inhibition of *Listeria monocytogenes* by a bacteriocinogenic *Lactobacillus sake* strain in modified atmosphere-packaged Brazilian sausage
A.M. LISERRE, M. LANDGRAF, M.T. DESTRO, B.D.G.M. FRANCO (Brazil)

457 AMSA membership: benefits and application

Contents of Volume 62

Number 1

1 Polyunsaturated fat and fish oil in diets for growing-finishing pigs: effects on fatty acid composition and meat, fat, and sausage quality
E.A. BRYHNI, N.P. KJOS, R. OFSTAD (Norway), M. HUNT (USA)

9 Effect of tocopherol concentration on rancidity development during frozen storage of a cured and an uncured processed pork product
H.A. CHANNON, G.R. TROUT (Australia)

19 Palatability of bison *semimembranosus* and effects of marination
J.S. DHANDA, R.B. PEGG, J.A.M. JANZ, J.L. AALHUS, P.J. SHAND (Canada)

27 Effects of sodium chloride and lactates on chemical and microbiological changes in refrigerated and frozen fresh ground pork
W. TAN, L.A. SHELEF (USA)

33 Evaluation of shelf life of cured, cooked, sliced turkey fillets and cooked pork sausages—'piroski'—stored under vacuum and modified atmospheres at +4 and +10 °C
E.S. PEXARA, J. METAXOPOULOS, E.H. DROSINOS (Greece)

45 Microbiological quality of retail chicken by-products in Spain
M. ÁLVAREZ-ASTORGA, R. CAPITA, C. ALONSO-CALLEJA, B. MORENO, M. DEL C. GARCÍA-FERNÁNDEZ (Spain)

51 Effect of dietary vitamin E, fishmeal and wood and liquid smoke on the oxidative stability of bacon during 16 weeks' frozen storage
S.A. CORONADO, G.R. TROUT, F.R. DUNSHEA, N.P. SHAH (Australia)

61 Quantitative determination of titin and nebulin in poultry meat by SDS-PAGE with an internal standard
J. TOMASZEWSKA-GRAS, J. KIJOWSKI (Poland), F.J.G. SCHREURS (The Netherlands)

67 Sensory characteristics of Galician chorizo sausage packed under vacuum and under modified atmospheres
E. FERNÁNDEZ-FERNÁNDEZ, M.L. VÁZQUEZ-ODÉRIZ, M.A. ROMERO-RODRÍGUEZ (Spain)

73 Contents of vitamins B_1, B_2, B_6, and B_{12} in pork and meat products
M.J. ESTEVE, R. FARRÉ, A. FRÍGOLA, C. PILAMUNGA (Spain)

79 Verification of different glial fibrillary acidic protein (GFAP) analyses as accurate detectors of central nervous system tissue in advanced meat recovery (AMR) products
G.R. SCHMIDT, R.S. YEMM, K.D. CHILDS, J.P. O'CALLAGHAN, K.L. HOSSNER (USA)

85 The microbiological quality of beef tripe using different processing techniques
J.C. BENSINK, B. DOBRENOV, M.P. MULENGA, Z.S. BENSINK, J.J. MCKEE (Australia)

93 Effect of feeding pasture-finished cattle different conserved forages on *Escherichia coli* in the rumen and faeces
L.H. JACOBSON, T.A. NAGLE (New Zealand), N.G. GREGORY (Australia), R.G. BELL, G. LE ROUX, J.M. HAINES (New Zealand)

107 Heating method and final temperature affect processing characteristics of beef *semimembranosus* muscle
J.A. BOLES (USA), J.E. SWAN (New Zealand)

113 Post mortem energy metabolism and meat quality of porcine *M. longissimus dorsi* as influenced by stunning method — A ^{31}P NMR spectroscopic study
H.C. BERTRAM, H. STØDKILDE-JØRGENSEN, A.H. KARLSSON, H.J. ANDERSEN (Denmark)

121 Meat and storage effects on processing characteristics of beef roasts
J.A. BOLES (USA), J.E. SWAN (New Zealand)

129 Proteolytic activity of *Penicillium chrysogenum* and *Debaryomyces hansenii* during controlled ripening of pork loins
A. MARTIN, M.A. ASENSIO, M.E. BERMÚDEZ, M.G. CÓRDOBA, E. ARANDA, J.J. CÓRDOBA (Spain)

I AMSA membership: benefits and application

Number 2

139 Temperatures and ages of packs of beef displayed at stores in Canada
C.O. GILL, T. JONES, D.I. LEBLANC, K. RAHN, S. CAMPBELL, R.A. HOLLEY, R. STARK, A. HOUDE (Canada)

145 Metabolic conditions in Porcine *longissimus* muscle immediately pre-slaughter and its influence on peri- and post mortem energy metabolism
P. HENCKEL, A. KARLSSON, M.T. JENSEN, N. OKSBJERG, J.S. PETERSEN (Denmark)

157 Role of deoxyhemoglobin in lipid oxidation of washed cod muscle mediated by trout, poultry and beef hemoglobins
M.P. RICHARDS, A.M. MODRA, R. LI (USA)

165 Novel combinations of chitosan, carnocin and sulphite for the preservation of chilled pork sausages
S. ROLLER, S. SAGOO, R. BOARD (UK), T. O'MAHONY, E. CAPLICE, G. FITZGERALD (Ireland), M. FOGDEN, M. OWEN, H. FLETCHER (UK)

179 Effect of grass or concentrate feeding systems on lamb carcass and meat quality
A. PRIOLO, D. MICOL, J. AGABRIEL, S. PRACHE, E. DRANSFIELD (France)

187 Thermal properties of titin from porcine and bovine muscles
E. POSPIECH (Poland), M.L. GREASER (USA), B. MIKOLAJCZAK (Poland), W. CHIANG (USA), M. KRZYWDZIŃSKA (Poland)

193 Adaptation of microplate reader for measuring oxidative rancidity in meat products
D.M. GAEBLER, S.J. JONES, R.W. MANDIGO (USA)

199 Fermented pork sausage fortified with commercial or hen eggshell calcium lactate
W. DAENGPROK, W. GARNJANAGOONCHORN (Thailand), Y. MINE (Canada)

205 Characterization of proteolysis during the ripening of semi-dry fermented sausages
M.C. HUGHES, J.P. KERRY, E.K. ARENDT, P.M. KENNEALLY, P.L.H. MCSWEENEY, E.E. O'NEILL (Ireland)

217 Antioxidant effects of rosemary extract and whey powder on the oxidative stability of wiener sausages during 10 months frozen storage
S.A. CORONADO, G.R. TROUT, F.R. DUNSHEA, N.P. SHAH (Australia)

225 Refractometry of pork muscle and beef connective and adipose tissue
H.J. SWATLAND (Canada)

229 Nitric oxide synthase activity in muscle foods
R.G. BRANNAN, E.A. DECKER (USA)

237 Bacteriocinogenic activity from starter cultures used in Spanish meat industry
J.C. NIETO-LOZANO, J.I. REGUERA-USEROS, M.C. PELÁEZ-MARTÍNEZ, A. HARDISSON DE LA TORRE (Spain)

245 Effects of age on fatty acid composition of the hump and abdomen depot fats of the Arabian camel (*Camelus dromedarius*)
I.T. KADIM, O. MAHGOUB, R.S. AL-MAQBALY, K. ANNAMALAI, D.S. AL-AJMI (Oman)

253 Fatty acid composition and quality characteristics of low-fat cooked sausages made with beef and chicken meat, tomato juice and sunflower oil
I. YILMAZ, O. ŞIMŞEK, M. IŞIKLI (Turkey)

259 The effect of dietary oregano essential oil on lipid oxidation in raw and cooked chicken during refrigerated storage
N.A. BOTSOGLOU, E. CHRISTAKI, D.J. FLETOURIS, P. FLOROU-PANERI, A.B. SPAIS (Greece)

267 *Staphylococcus aureus* survival, staphylococcal enterotoxin production and shelf stability of country-cured hams manufactured under different processing procedures
S.M. PORTOCARRERO, M. NEWMAN, B. MIKEL (USA)

I AMSA membership: benefits and application

Number 3

SPECIAL ISSUE: 48th Annual Congress of Meat Science and Technology (ICoMST)

275 Forty-eighth International Congress of Meat Science and Technology—Rome 25–30 August 2002: Meat, nutrition, development
R. CHIZZOLINI, G. PAROLARI (Italy)

277 Use of irradiation for microbial decontamination of meat: situation and perspectives
M. SATIN (USA)

285 Current and future technologies for the decontamination of carcasses and fresh meat
R.D. HUFFMAN (USA)

295 Managing meat tenderness
J. THOMPSON (Australia)

309 Lipids in muscles and adipose tissues, changes during processing and sensory properties of meat products
G. GANDEMER (France)

323 Validation of manufacturing process to control pathogenic bacteria in typical dry fermented products
S. BARBUTI, G. PAROLARI (Italy)

331 Muscle traits for long matured dried meats
R. VIRGILI, C. SCHIVAZAPPA (Italy)

345 Meat tenderness and muscle growth: is there any relationship?
M. KOOHMARAIE, M.P. KENT, S.D. SHACKELFORD, E. VEISETH, T.L. WHEELER (USA)

353 Welfare of animal production in intensive and organic systems with special reference to Danish organic pig production
P.B. GADE (Denmark)

359 New mild technologies in meat processing: high pressure as a model technology
M. HUGAS, M. GARRIGA, J.M. MONFORT (Spain)

373 Antimicrobial food packaging in meat industry
S. QUINTAVALLA, L. VICINI (Italy)

381 Bacteriological safety issues in red meat and ready-to-eat meat products, as well as control measures
E. BORCH, P. ARINDER (Sweden)

I AMSA membership: benefits and application

Number 4

391 The effect of nutritional supplements on growth rate, stress responsiveness, muscle glycogen and meat tenderness in pastoral lambs
T.E. LOWE, B.M. PEACHEY, C.E. DEVINE (New Zealand)

399 Processing characteristics of beef roasts made from high and normal pH bull inside rounds
J.E. SWAN (New Zealand), J.A. BOLES (USA)

405 Monoclonal antibodies against troponin I for the detection of rendered muscle tissues in animal feedstuffs
F.-C. CHEN, Y.-H.P. HSIEH, R.C. BRIDGMAN (USA)

413 The effect of food deprivation prior to slaughter on performance, behaviour and meat quality
V.E. BEATTIE, M.S. BURROWS, B.W. MOSS, R.N. WEATHERUP (UK)

419 Processing and sensory characteristics of cooked roast beef: effect of breed, age, gender and storage conditions
J.A. BOLES (USA), J.E. SWAN (New Zealand)

429 Effects of halothane genotype and pre-slaughter treatment on pig meat quality. Part 1. Post mortem metabolism, meat quality indicators and sensory traits of m. *Longissimus lumborum*
X. FERNANDEZ, E. NEYRAUD, T. ASTRUC, V. SANTE (France)

439 Effects of halothane genotype and pre-slaughter treatment on pig meat quality. Part 2. Physico-chemical traits of cured-cooked ham and sensory traits of cured-cooked and dry-cured hams
X. FERNANDEZ, S. GILBERT, J.-L. VENDEUVRE (France)

447 Influence of outdoor rearing and indoor temperature on growth performance, carcass, adipose tissue and muscle traits in pigs, and on the technological and eating quality of dry-cured hams
B. LEBRET, P. MASSABIE, R. GRANIER, H. JUIN, J. MOUROT, P. CHEVILLON (France)

457 Effects of α-tocopherol level in raw venison on lipid oxidation and volatiles during storage
Y. OKABE, A. WATANABE, H. SHINGU, S. KUSHIBIKI, K. HODATE, M. ISHIDA, S. IKEDA, T. TAKEDA (Japan)

463 Effects of halothane gene and pre-slaughter treatment on meat quality and welfare from two pig crosses
E. FÀBREGA, X. MANTECA, J. FONT, M. GISPERT, D. CARRIÓN, A. VELARDE, J.L. RUIZ-DE-LA-TORRE, A. DIESTRE (Spain)

473 Substitution of nitrite by sorbate and the effect on properties of mortadella
A.M. AL-SHUIBI, B.M. AL-ABDULLAH (Jordan)

479 Inhibition of mutagenic N-nitroso compound formation in sausage samples by using L-ascorbic acid and α-tocopherol
H. POURAZRANG, A.A. MOAZZAMI, B.S.F. BAZZAZ (Iran)

485 Manipulation of critical quality indicators and attributes in pork through vitamin E supplementation, muscle glycogen reducing finishing feeding and pre-slaughter stress
K. ROSENVOLD, H.N. LÆRKE, S.K. JENSEN, A.H. KARLSSON (Denmark), K. LUNDSTRÖM (Sweden), H.J. ANDERSEN (Denmark)

497 The calibration temperature of pH-glass electrodes: significance for meat quality classification
A.H. KARLSSON, K. ROSENVOLD (Denmark)

503 Influence of meat quality and NaCl percentage on glutathione peroxidase activity and values for acid-reactive substances of raw and dry-cured *Longissimus dorsi*
C. SARRAGA, I. CARRERAS, J.A. GARCÍA REGUEIRO (Spain)

509 Book review

511 Erratum

I AMSA membership: benefits and application